Name of Work : - Package 2 Consists of 3 Works of Rs.1100.00 Lakhs

1.Improvements to roads and drains at Kogilu and surrounding area in Ward No 05 Byatarayanapura sub division
2.Improvements to roads and drains at Agrahara and surrounding area in Ward No 05 Byatarayanapura sub division
3.Improvements to roads and drains at Hegdenagar and surrounding area in Ward No 06 Byatarayanapura sub division
Name of Contractor :- M/S Benaka Developers and Projects Pvt Ltd
Estimated cost: 1100.00 Lakh
Amount put to Tender as per Sanction : 92241120.15
Agreement No. EE/BTP/BBMP/E-PMT/03/2020-21 Date 05-02-2021
Accepted Tendered Amount : Rs.9,31,63,530.00
Job Code / Indent No :- 005-20-000074 Indent No.42314
Head of Account : PJ158 SIP Infrastructures Project Works

Comparative Statement

Sl. No.	Description of work	Unit	As per Estimate			As per Tender			Total Anticipated Qty	Total Amount 14+17	Qty up to 125%					Qty above 125%			Total Amount 14+17	Excess Amount 11-09	Savings Amount 11 - 9	Remarks
			Qty	Rate	Amount	Qty	Rate	Amount			Qty		Qty	Rate	Amount	Qty	Rate	Amount				
1	2	3	4	5	6	7	8	9	10	11			12	13	14	15	16	17	18	18	19	20
1	KSRRB 300-1 Earthwork excavation by manual means for roads, drains & simular works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P No-143 &136 ,I No-19 1&17 4& 17 1) 5km lead= 57+2 0x1 28x5=69 80	Cum	8,443 14	211 79	1788172 62	8443 14	234 00	1975695 00	6980 37	1633406 14	6980 37	0 00	6980 37	234 00	1633406 14	0 00		0 00	1633406 14		3,42,288 86	
2	Removing and refixing stone slabs of drains and pointing in CM (1 3) (P No 27, I No 5 33 of PW, P&IWTD SR 2018-19)	Sqm	5,845 37	111 30	650589 12	5,845 36	112 00	654680 00	3297 09	369274 08	3297 09	0 00	3297 09	112 00	369274 08	0 00		0 00	369274 08		2,85,405 92	
3	Removing and resetting of footpath slab (P No.270, I No 37 56 of PW, P&IWTD SR 2018-19)	Sqm	753 30	208 82	157304 11	753 30	210 00	158193 00	5473 77	1153615 95	753 30	188 33	941 63	210 00	197742 30	4532 14	210 91	955873 65	1153615 95	9 95,422 95		
4	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1 6) including fixing curing etc, Complete 7 5cms thick (P No 27, I No 5 31 1 of PW, P&IWTD SR 2018-19)	Sqm	3,313 49	742 00	2458605 87	3,313 48	819 00	2713740 00	2266 25	1856054 66	2266 25	0 00	2266 25	819 00	1856054 66	0 00		0 00	1856054 66		8,57,685 34	
5	KSRRB M2900-1 Plain cement concrete M10 mix with crushed stone aggregate 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing including cost of materials, labour, HOM complete as per specifications MORTH Specification No 408 (P No 254, I No 34 1 of PW,P&IWTD S R 2018-19)	Cum	9 24	4,479 56	41391 13	9 24	4516 00	41728 00	6 37	28769 18	6 37	0 00	6 37	4516 00	28769 18	0 00		0 00	28769 18		12,958 82	
6	Providing and constructing granute / trap / basalt size stone masonry in foundation with cement mortar & stone hammerd dressed in courses not less than 20 cms high, bond stones at 2m apart in each course including cost of materials, labour, HOM, curing complete as per specifications KBS 5 1 13 cement mortar 1 6(P No 255, I No 34 8 2 of PW, P&IWTD S R 2018-19)	Cum	9 72	4,871 76	47353 51	9 72	4910 00	47725 00	12 85	63100 84	9 72	2 43	12 15	4910 00	59656 50	0 70	4920 48	3444 34	63100 84	15,375 84		
7	Providing and laying in position plain cement concrete of mix 1 2 4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0 69 cum and fine aggregtes @ 0 459cum, machine mixed, concrete laid in layers not exceeding 15 cms thick, well compacted, for coping Including cost of all materials, labour, HOM, curing complete as per specifications Specification No KBS 4 1, 4 2(P No 255, I No 34 11 of PW,P&IWTD S R 2018-19)	Cum	2 16	5,599 98	12095 96	2 16	5645 00	12193 00	7 46	42163 96	2 16	0 54	2 70	5645 00	15241 50	4 76	5655 98	26922 46	42163 96	29,970 96		
8	34 17 Providing and laying in position plain/Reinforced cement concrete M20 for sub structure/Superstructure works, with cement @ 320 kgs, 20 mm & down size graded granite metal coarse aggregate @ 0 69 cum and fine aggregates @ 0 46 cum machine mixed with super plasticisers @ 3 lts confirming to IS 9103-2008,concrete laid in layers, well compacted and providing weep holes wherever necessary with necessary scaffolding, form work etc., including cost of labour, HOM curing etc., complete (P No 257, I No 34 17 of PW, P&IWTD SR 2018-19)	Cum	24 64	5,277 74	130043 51	24 64	5320 00	131085 00	18 56	98760 48	18 56	0 00	18 56	5320 00	98760 48	0 00		0 00	98760 48		32,324 52	

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Sl. No.	Description of work	Unit	As per Estimate			As per Tender			Total Antimpated Qty	Total Amount 14+17	Qty up to 125%					Qty above 125%			Total Amount 14+17	Excess Amount 11-09	Savings Amount 11 - 9	Remarks
			Qty	Rate	Amount	Qty	Rate	Amount			Qty		Qty	Rate	Amount	Qty	Rate	Amount				
1	2	3	4	5	6	7	8	9	10	11			12	13	14	15	16	17	18	18	19	20
9	KSRRB M2200-6 Providing T M T steel reinforcement for R C C work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification MORTH Specification No 1600 & 2200 TMT Bars Fe 500 (P No 229, I No 28 8 2 of PW, P&IWTD SR 2018-19)	Tonne	1 97	72,326 98	142484 15	1 97	72897 00	143607 00	1 38	100642 02	1 38	0 00	1 38	72897 00	100642 02	0 00		0 00	100642 02		42,964 98	
10	Providing and laying 100mm thick pre-cast cover slabs over drains of width not exceeding 800 mm using M20 concrete reinforced with steel @ 6 00 kg/Sqm, slabs jointed in CM 1 3 proportion and nicely finished including providing holes in the Cover slabs wherever necessary for easy drainage of surface water including of labour, materials, HOM of machineries, curing, lead and lift charges etc, Complete as per MORTH specifications No 1500, 1700 (P No 272, I No 37 66 of PW,P&IWTD SR 2018-19)	m	83 70	1,145 86	95908 48	83 70	1099 00	91986 00	83 00	91217 00	83 00	0 00	83 00	1099 00	91217 00	0 00		0 00	91217 00		769 00	
11	Providing and fixing pre cast covering Slab 250mm thick made out of CC 1 2 4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery loading, unloading, lead and lift,transportation etc ,complete As per Engineer incharge	Sqm	88 80	5,418 00	481118 40	88 80	5201 00	461849 00	31 20	162271 20	31 20	0 00	31 20	5201 00	162271 20	0 00		0 00	162271 20		2,99,577 80	
12	KSRRB M300-14 Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1 00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301with 4km lead+ (1 No-19 14,P No-143)	Cum	19,892 04	54 31	1080336 69	19,892 04	60 00	1193522 00	21488 97	1289338 20	19892 04	1596 93	21488 97	60 00	1289338 20	0 00		0 00	1289338 20	95,816 20		
13	KSRRB M400-17 Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P No-155,I No-20 18)	Cum	15,960 33	2,001 28	31941089 22	15,960 30	1729 00	27595359 00	17476 40	30216696 75	15960 30	1516 10	17476 40	1729 00	30216696 75	0 00		0 00	30216696 75	26,21,337 75		
14	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0 60 kgISqm using mechanical means complete as per specifications As per MORTH specificaton clause No. 502 (P No 158, I No 21 6 of PW,P&IWTD SR 2018-19)	Sqm	63,841 30	28 62	1827138 01	63,841 30	29 00	1851398 00	67161 80	1947692 18	63841 30	3320 50	67161 80	29 00	1947692 18	0 00		0 00	1947692 18	96,294 18		
15	KSRRB 500-2 Cleanng the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications MORTH Spec, Chapter 5 (P No 158, I No 21 2 of PW,P&IWTD SR 2018-19)	Sqm	48,492 70	5 30	257011 31	48,492 70	6 00	290956 00	36622 99	219737 93	36622 99	0 00	36622 99	6 00	219737 93	0 00		0 00	219737 93		71,218 07	
16	KSRRB M500-7 Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2 5 Kg per 10 Sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications MORTH / Chapter 5 (P No 158 I No 21 7 of PW,P&IWTD SR of 2018-19)	Sqm	1,40,090 80	12 72	1781954 98	1,40,091 00	12 00	1681092 00	129984 74	1559816 82	129984 74	0 00	129984 74	12 00	1559816 82	0.00		0 00	1559816 82		1,21,275 18	

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Comparative Statement

Sl. No.	Description of work	Unit	As per Estimate			As per Tender			Total Anticipated Qty	Total Amount 14+17	Qty up to 125%					Qty above 125%			Total Amount 14+17	Excess Amount 11-09	Savings Amount 11 - 9	Remarks
			Qty	Rate	Amount	Qty	Rate	Amount			Qty		Qty	Rate	Amount	Qty	Rate	Amount				
1	2	3	4	5	6	7	8	9	10	11			12	13	14	15	16	17	18	18	19	20
17	KSRRB M500-17 Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H M P with Mechanical paver Gr-II (50 mm to 75 mm) with 4 5 % VG-30 Bitumen (P No-160,I No-21 17 6)	Cum	1,387 84	6,597 44	9156191 13	1,387 84	7284 00	10109027 00	1441 41	10499231 28	1387 84	53 57	1441 41	7284 00	10499231 28	0 00		0 00	10499231 28	3,90,204 28		
18	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 507 of MORTH V revision as per IRC SP-53-2015 using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5 4% of modified bituminus binder consisting of 4 97% of VG-30 bitumen (60/70 grade) and 0 43% of plastomers, thermoplastics (waste plastic) (P No 171, I No 21 78 12 of PW,P&IWTD SR 2018-19) As per Issue rate dated 03/01/2020	Cum	4,493 36	7,753 90	34841064 10	4,493 36	8613 76	38704725 00	4110 43	35406251 68	4110 43	0 00	4110 43	8613 76	35406251 68	0 00		0 00	35406251 68		32,98,473 32	
19	KSRRB M800-13 Road Marking with Hot Applied Thermoplastic Compound with Reflectising Glass Beads on Bituminous Surface/ Concrete Surface Providing and laying of hot applied thermoplastic compound 2 5 mm thick including reflectorising glass beads at 250 gms per Sqm area, thickness of 2 5 mm is exclusive of surface applied glass beads as per IRC 35 standards specified The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No 803(P No-182,I No-24 15)	Sqm	4,370 50	454 74	1987441 17	4,370 50	458 00	2001689 00	4338 61	1987083 38	4338 61	0 00	4338 61	458 00	1987083 38	0 00		0 00	1987083 38		14,605 62	
20	KSRRB M600-1 Construction of dry lean cement concrete mix CC1 5 10 with OPC cement @160Kgs, with 25mm and down size graded granite metal coarse aggregate at 0 86cum and fine aggregates @ 0 58cum Sub- base over a prepared sub-grade with (coarse and fine aggregate conforming to IS 383) aggregate cement ratio not to exceed 15 1 Aggregate gradation after blending to be as per Table 600-1, cement content not to be less than 160 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications MORTH V Revision Specification No 601, IS 456 Table-5 with OPC at 150 kg/cum and coarse aggregate 0 86cum, fine aggregate 0 58cum using Concrete Batch mix Plant at 75 cum/hr capacity with fixed form paver ((P No 174, I No 22 1 2 of PW,P&IWTD SR 2018-19)	cum	369 83	3,884 90	1436733 14	369 82	3730 00	1379429 00	391 92	1461867 11	369 82	22 10	391 92	3730 00	1461867 11	0 00		0 00	1461867 11	82,438 11		

Comparative Statement

Sl. No.	Description of work	Unit	As per Estimate			As per Tender			Total Agreed Qty	Total Amount 14+17	Qty up to 125%					Qty above 125%			Total Amount 14+17	Excess Amount 11-09	Savings Amount 11 - 9	Remarks
			Qty	Rate	Amount	Qty	Rate	Amount			Qty		Qty	Rate	Amount	Qty	Rate	Amount				
1	2	3	4	5	6	7	8	9	10	11			12	13	14	15	16	17	18	18	19	20
21	Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30 with OPC at 360 kg/cum and coarse aggregate 0.69cum, fine aggregate 0.46cum over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and fine aggregate conforming to IS 383:2016, with Superplasticer at 3 lts conforming to IS 9103-2008 mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing) & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine, and curing including cost of all materials, labour,hire charges of machineries,all lead & lift charges etc., complete as per specifications (P No-182,I No-22.6.1)	Cum	369.83	5,210.96	1927143.28	369.82	5202.00	1923804.00	390.53	2031549.95	369.82	20.71	390.53	5202.00	2031549.95	0.00		0.00	2031549.95	1,07,745.95		
																		986240.45		44,34,606.22	53,79,547.43	
					9,22,41,169.90			9,31,63,482.00		9,22,18,540.79										44,34,606.22	53,79,547.43	

	Estimate Cost	9,22,41,169.90
	Tender Amount	9,31,63,482.00
	Total Work Slip Amount	44,34,606.22
	Percentage of Work Slip Amount Compared to Tender Amount	4.76%
	Anticipated Amount	9,22,18,540.79
	Overall Savings on Approved Tender Cost	9,44,941.21

TEXUS CONSULTANTS Consultant

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ.ಬ.ಪಂ.೦೭ ಬ್ಯಾಡರಾಯನಪುರ ವಿಭಾಗ
B.B.M.P

Assistant Executive Engineer
Byatarayanapura Division
B.B.M.P

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಡರಹಳ್ಳಿ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-24

ಬ್ಯಾಡರಾಯನಪುರ ವಿಭಾಗ
B.B.M.P

ಮುಖ್ಯ ಅಭಿಯಂತರರು
ಯೋಜನೆ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ